

Calibration Report: Pressure Transducer

Travis Childrey and Bryan Fabbri
York High / Science Systems and Applications, Inc.
Hampton, Virginia

Summary

Calibration Date: 18 February 2005 Next Calibration Date: 18 February 2006

A collection, analysis and calibration of data from Vaisala Pressure Transducer, S/N:S4620032 and S/N:S3820006 has been completed. The calibration was performed by the calibration library, Vaisala, Inc. This data was collected by Vaisala, Inc. on February 18, 2005.

MODEL: PTB101B

SERIAL NUMBER: S4620032, S3820006

The test data presented in data table format show the transducers deviation and correction in hPa. The calibration uncertainty is given at 95% confidence level.

Note: Units in hPa per user's request.

APPLICATION: Add corrections to measurements per post calibration table.



CALIBRATION CERTIFICATE

after adjustment

Customer CAMPBELL SCIENTIFIC, INC.
Instrument PTB101B Analog barometer
Serial number S3820006
Manufacturer Vaisala Oyj, Finland
Calibration date 18th February 2005
Test procedure doc210609a

This instrument has been calibrated against a Vaisala PTB220 factory working standard which has been calibrated against a Ruska 2465 pressure balance traceable to the National Institute of Standards and Technology (NIST, USA) at Vaisala Measurement Standards Laboratory (MSL). Vaisala MSL has been accredited by the Finish Accreditation System (FINAS) according to ISO/IEC 17025 standard.

At the time of shipment, the instrument described above met its operating specifications.

Calibration results

Reference pressure hPa	Observed pressure hPa	Correction* hPa	Uncertainty** hPa
620.2	620.1	0.1	± 0.15
700.2	700.3	-0.1	± 0.15
800.3	800.4	-0.1	± 0.15
850.3	850.4	-0.1	± 0.15
900.3	900.3	0.0	± 0.15
950.3	950.2	0.1	± 0.15
1000.4	1000.4	0.0	± 0.15
1060.2	1060.3	-0.1	± 0.15

*To obtain the true pressure, add the correction to the barometer reading. Interpolated corrections may be used at intermediate readings of the scale of the barometer.


**The calibration uncertainty given at 95 % confidence level, $k = 2$

Equipment used in calibration

Type	Serial number	Calibration date	Certificate number
Vaisala PTB220	X3710015	2004-11-16	K008-M01856
Vaisala PTB220	X1260001	2004-11-17	K008-M01855
AT 34970A	US37047279	2004-08-02	1000330376

Ambient conditions / Humidity 22 ± 5 %RH, Temperature 22 ± 1 °C, Pressure 1007 ± 1 hPa

For Vaisala


Edwige Mehu

This report shall not be reproduced except in full, without the written approval of Vaisala.

doc210635a



CALIBRATION CERTIFICATE

after adjustment

Customer CAMPBELL SCIENTIFIC, INC.
Instrument PTB101B Analog barometer
Serial number S4620032
Manufacturer Vaisala Oyj, Finland
Calibration date 18th February 2005
Test procedure doc210609a

This instrument has been calibrated against a Vaisala PTB220 factory working standard which has been calibrated against a Ruska 2465 pressure balance traceable to the National Institute of Standards and Technology (NIST, USA) at Vaisala Measurement Standards Laboratory (MSL). Vaisala MSL has been accredited by the Finish Accreditation System (FINAS) according to ISO/IEC 17025 standard.

At the time of shipment, the instrument described above met its operating specifications.

Calibration results

Reference pressure hPa	Observed pressure hPa	Correction* hPa	Uncertainty** hPa
620.0	619.7	0.3	± 0.15
700.1	700.1	0.0	± 0.15
800.1	800.1	0.0	± 0.15
850.1	850.0	0.1	± 0.15
900.1	900.0	0.1	± 0.15
950.1	949.9	0.2	± 0.15
1000.1	999.9	0.2	± 0.15
1060.1	1059.9	0.2	± 0.15

*To obtain the true pressure, add the correction to the barometer reading. Interpolated corrections may be used at intermediate readings of the scale of the barometer.


**The calibration uncertainty given at 95 % confidence level, $k = 2$

Equipment used in calibration

Type	Serial number	Calibration date	Certificate number
Vaisala PTB220	X3710015	2004-11-16	K008-M01856
Vaisala PTB220	X1260001	2004-11-17	K008-M01855
AT 34970A	US37047279	2004-08-02	1000330376

Ambient conditions / Humidity 22 ± 5 %RH, Temperature 22 ± 1 °C, Pressure 1007 ± 1 hPa

For Vaisala


Edwige Mehtu

This report shall not be reproduced except in full, without the written approval of Vaisala.

doc210635a